

36455  
PCTWORLD INTELLECTUAL PROPERTY ORGANIZATION  
International Bureau

## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

|   |  |           |   |
|---|--|-----------|---|
| (51) International Patent Classification <sup>6</sup> :   |  | A2        | (11) International Publication Number: <b>WO 97/22699</b>   |
| C12N 15/13, C07K 16/42, C12N 5/10,<br>5/20, 15/86, C07K 19/00, A61K 38/19,<br>38/20, 39/395, G01N 33/68, 33/574,<br>33/577, C12Q 1/68 |  |           | (43) International Publication Date: 26 June 1997 (26.06.97)  |
| (21) International Application Number:  | PCT/US96/20757   |           | Lexington, KY 40506 (US). CHATTERJEE, Sunil, K.<br>[US/US]; 2400 The Woods Lane, Lexington, KY 40502<br>(US).   |
| (22) International Filing Date:   | 19 December 1996 (19.12.96)  |           |   |
| (30) Priority Data:   | 20 December 1995 (20.12.95)<br>US<br>26 January 1996 (26.01.96)<br>US<br>Not furnished 13 December 1996 (13.12.96)<br>US           |           | (74) Agents: POLIZZI, Catherine, M. et al.; Morrison & Foerster<br>L.L.P., 755 Page Mill Road, Palo Alto, CA 94304-1018<br>(US).  |
| (60) Parent Application or Grant  |  |           | (81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR,<br>BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE,<br>HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,<br>LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL,<br>PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA,<br>UG, US, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ,<br>UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ,<br>TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR,<br>GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF,<br>BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). |
| (63) Related by Continuation  | Not furnished (CIP)<br>US<br>Filed on 13 December 1996 (13.12.96)  |           |   |
| (71) Applicant (for all designated States except US):   | UNIVERSITY<br>OF KENTUCKY [US/US]; Intellectual Property Develop-<br>ment, A144 ASTeCC Building, Lexington, KY 40506-0286<br>(US). |           |   |
| (72) Inventors; and   |  | Published |   |
| (75) Inventors/Applicants (for US only):  | CHATTERJEE, Malaya<br>[US/US]; 2400 The Woods Lane, Lexington, KY 40502<br>(US). FOON, Kenneth, A. [US/US]; 800 Rose Street,       |           | Without international search report and to be republished<br>upon receipt of that report.   |

(54) Title: MURINE MONOCLONAL ANTI-IDIOTYPE ANTIBODY 11D10 AND METHODS OF USE THEREOF

## (57) Abstract

The present invention provides a monoclonal anti-idiotype antibody 11D10 that elicits an immune response against a specific epitope of a high molecular weight mucin of human milk fat globule (HMFG) and a hybridoma that produces 11D10. The hybridoma that produces 11D10 was selected by specific procedures. 11D10 induces an immunological response to HMFG in mice, rabbits, monkeys and patients with advanced HMFG-associated tumors. This invention provides compositions derived from polynucleotide sequences encoding the variable light and/or variable heavy regions of monoclonal anti-idiotype antibody 11D10, as well as polypeptides encoded thereby. The invention also provides compositions which can be used in the detection or treatment of HMFG-associated tumors.